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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) 1006/0146PUS1	
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____ Signature _____ Typed or printed name _____		Application Number 10/580,656	Filed 25 May 2006
		First Named Inventor MAMBER	
		Art Unit 3744	Examiner LEO, LEONARD R
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <p><input type="checkbox"/> applicant/inventor.</p> <p><input type="checkbox"/> assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/98)</p> <p><input checked="" type="checkbox"/> attorney or agent of record: Registration number <u>51011</u></p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34. _____</p> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.</p>			
<p><input type="checkbox"/> *Total of _____ forms are submitted.</p>			


Signature

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September 9, 2010
Date

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Attorney Docket No.: 1006/0146PUS1

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Oliver MAMBER

Conf. No.: 5033

Application No.: 10/580,656

Art Unit: 3744

Filed: May 25, 2006

Examiner: Leonard LEO

Title: HEAT EXCHANGER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

STATEMENT IN SUPPORT OF REQUEST FOR PRE-APPEAL BRIEF REVIEW

Sir:

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa in view of Jaffe. It is respectfully submitted that Jaffe is non-analogous art that cannot properly be combined with Nakagawa. Moreover, even if Jaffe is determined to be analogous art, it does not stand for the proposition for which it is cited and in no manner suggests a modification to Nakagawa that would result in the invention of claim 5. Each of these issues is addressed below.

In order to be considered analogous art, a reference must either be in the field of an applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned. *In re Oetiker*, 24 U.S.P.Q. 2d 1443, 1445 (Fed. Cir. 1992). "A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in

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considering his problem." *In re Clay*, 23 U.S.P.Q. 2d 1058, 1060-61 (Fed. Cir. 1992).

Claim 5 is directed to a heat exchanger coated with nanoparticle layers containing specific materials that provide, inter alia, corrosion resistance and hydrophilicity. Jaffe is directed toward an adsorbent sheet of material for parallel passage contactors which are apparently used for gas separation. See, for example, column 8, lines 53-59, where the adsorption of volatile organic compounds (VOC's) is described. The Jaffe reference is not in the field of heat exchangers and does not appear to have any relevance to the problem faced by the present inventors. Jaffe therefore fails the first prong of the non-analogous art test. Moreover, nothing in the record suggests that one seeking to improve heat exchangers would look to the parallel passage contactor and/or gas adsorption arts for possible solutions. Jaffe therefore also fails the second prong of the non-analogous art test and is submitted to be non-analogous prior art.

The Advisory Action indicates that one of ordinary skill in the art would select from among known hydrophilic materials to substitute for Nakagawa's hydrophilic coating. Applicant will assume, arguendo, that this is true. The examiner then indicates that "Jaffe et al discloses adsorbent (i.e. hydrophilic) particles...." Applicant respectfully disagrees with this assertion. The fact that Jaffe's particles adsorb various gases, such as VOC's does not mean that they are hydrophilic. Thus even if Jaffe were analogous art, one of ordinary skill in the art would have no reason to add Jaffe's gas adsorptive particles to Nakagawa's heat exchanger. It is further respectfully submitted that nothing in the record suggests that the results of adding gas adsorbing particles to a heat exchanger would be "predictable."

Even if Jaffe is established to be analogous art, it is respectfully submitted that it

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does not stand for the proposition for which it is cited. The Office Action cites Jaffe to show that "adsorbent particulates in the form of inorganic oxide nanoparticles of silica and ceria (i.e. cerium oxide) are obvious variants of one another." The section of Jaffe cited to support this assertion merely lists silica and ceria as examples of inorganic oxide nanoparticles - there is no description of their properties, no indication that they are used interchangeably, and no indication that they are obvious variants of one another. Moreover, even assuming arguendo that silica and ceria could be substituted for one another on an adsorbent sheet in a parallel passage contactor, nothing in the record suggests that they could be substituted for one another in a heat exchanger coating. A mere listing of materials does not establish that they are "obvious variants" of each other for a given purpose much less for all possible purposes. For this reason as well, the combination of Nakagawa and Jaffe does not show or suggest the invention of claim 5, and claim 5 is submitted to be allowable over the art of record.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa in view of Jaffe and further in view of Kojima. The rejection of claim 1 requires that Nakagawa be modified based on Jaffe for the same reasons as were presented in the rejection of claim 5. However, as argued above in connection with claim 5, Jaffe is non-analogous art and does not stand for the proposition for which it is cited. Nakagawa and Kojima do not show all features of claim 1. Claim 1 is therefore submitted to be allowable over the art of record for at least the same reasons as claim 5.

In addition, claim 1 recites heat transfer surfaces that include a first layer having certain properties and a second layer different than the first layer. The Office Action indicates that Nakagawa includes a first layer of alumina nanoparticles and a second

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layer of silica nanoparticles. However, it is respectfully submitted that such layers are not disclosed in Nakagawa. Instead, Nakagawa discloses one embodiment in which "alumina fine particles" are used and another embodiment which contains a combination of alumina and silica. This is shown by the several examples of "subsequent treatments" of an aluminum sheet having an anticorrosive coating described in Nakagawa. Subsequent treatment example 1 includes an alumina dispersion. Subsequent treatment example 3 uses a mixture of alumina and silica particles. These are different treatments of a base material and do not show a base material having a first layer of alumina particles and a second layer of silica particles as claimed. Nakagawa does not satisfy this limitation of claim 1, Jaffe and Kojima do not address this shortcoming of Nakagawa, and claim 1 is submitted to be allowable for at least this reason.

Claims 6-10 depend from claim 1 and are submitted to be allowable for at least the same reasons as claim 1.

Respectfully submitted,



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